health of the employes and with the bonus plan and the employes as stockholders we are like a big family with interests that are mutual. If the employes have any grievance they can feel free to talk with their foreman or the management at any time and are welcome to do so. Differences and difficulties, if any arise, are always settled in this way.

THE ESTABLISHMENT OF PERMANENT CONTACTS WITH THE SOURCES OF LABOR SUPPLY

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A well-known scientist is reported to have faced a certain problem, and after looking over the field to have simply said, "Gosh." When one approaches a study of the organization of the sources of labor supply one feels very much the same way.

The scientific consideration of the human element in the carrying on of big business is a practically new departure. But it has come to be recognized that, all other elements aside, excessive hiring and firing is an economic loss, a loss in which both the employer and the employe are vitally affected.

It is recognized that when we speak in the language of the dollar sign, we speak a tongue that is common to all.

One of the first factors entering into the cutting down of labor turnover, is the securing of proper employes. In many plants functionalized employment departments have been established to "handle" each employe to the mutual benefit of the man and of the firm: they examine each applicant; they determine his particular fitness for one position or another; and, after the man has been hired, they keep in touch with his work through data furnished by foremen and other sources. Other plants, in place of a department, simply appoint a man who is responsible for hiring such men as, in his judgment, will prove valuable to the organization. These employment officials go under a host of titles and are really little more than employment clerks.

Both the employment departments and the employment clerks, it will be noticed, throw almost the entire emphasis on the work *after* the worker comes into the plant. Of course, the chief emphasis should be in this direction. But for our particular discussion the question presents itself, "Is it not possible to go even one step further back?" What of the workmen, unknown and unsought, who pass a firm's doors endlessly and fruitlessly? In that stream are high-grade men the firm wants; new blood suited to its needs; and perhaps indispensable in the long run. How is the firm to know this and recognize the man? How are the men to recognize their rightful destination; or, knowing, what sign can they hold up for the employer? The employer must make the first move. Before he can stop or dam up the stream of workmen, he must follow it to its sources—the courses from which the supply of labor emanates. Having the sources of the labor supply intelligently lined up, the employer can, at least, point the way by which some organizing and improving of these sources may be brought about. He is the most vitally concerned; he must bear the responsibility of the problem.

It must not be supposed that the field has been entirely barren of effort. Perhaps the first step—and a most important and productive one—has been the coöperation with the various schools and colleges.

Certain types of industry require men with technical training. Some concerns have turned to the technical schools and colleges to supply this demand and have established with them close and permanent relationships. One of the best examples of this is the General Electric Company of Schenectady. This company has 73 colleges on its list, and 8 foreign institutions, to which it goes for picked men. To supplement the theoretical knowledge of the college class room, the company provides for a student engineer's course. During the past 12 years 3,450 student engineers have entered the works at Schenectady, Pittsfield and Lynn. The number of men engaged annually varies between 200 and 400, depending upon industrial conditions. To enter this course a man must have a technical college training or its equivalent, and of course, the proper endorsement of the college authorities and other personal recommendations.

If cases of this sort were the only kind, then the man without

a technical training would be decidedly handicapped. However, the Western Electric offers a like opportunity to the untrained man. Aside from engineering, the work of the company is divided into two general groups, namely: manufacturing and commercial. Each year a representative of the company goes the rounds of the colleges, describes the opportunities offered by the company, and, of the men that come to him, endeavors to pick those whom he judges best fitted. Another firm which has started the ball rolling in the right direction is the Otis Elevator Company. It yearly selects and takes on a number of college men for training.

In order to secure desirable men for positions in the Far East, the Standard Oil Company has adopted a training system. College men are generally chosen for this work, but any American between the ages of 18 and 21 is eligible. Various phases of the oil business are taught and trips are taken to several of the company's plants. Men are dropped from time to time if they fail to meet the requirements as laid down by the company. If the student passes the course successfully, he is given further training in the foreign field at the beginning of his work. Thus the company is able to have constantly at hand a body of picked men. Other companies, not so widely known, perhaps, have followed essentially this same plan. The Rand Company of North Tonawanda, N. Y., is one. The Bamburger Department Store of Newark, N. J., is an example of a concern, other than a manufacturing plant, that is making a special effort to reach back to the ultimate sources of supply so that it will be in a position to make the best choice of men.

In order to fill the need of men who cannot afford to go to college, extension courses are offered in some of the larger cities, by Columbia, the Wharton School of the University of Pennsylvania, and others. These extension courses generally exist with the coöperation of employers, and indeed, depend on that coöperation. As an illustration of the regard in which employers hold the extension school, the story is told of a barber who worked in one of the hotels; and attended the evening classes. Among his patrons were men well up in the industrial and commercial world. Soon after it was known that he was taking the extension course, he was offered a job by one of these men; a position much superior to the one he was then occupying. Thus, such coöperative activi-

ties not only improve the sources of supply but also single out the man worthy of promotion.

Working along this same line, we find evening schools conducted by colleges and Christian Associations. These, too, as a general rule, receive the hearty support of employers.

One of the most successful fields for the organization of a labor source has been found in the high schools. Thus the Curtis Publishing Company of Philadelphia, through its employment department, aims to keep in personal touch with the principals of all the schools in the city. The company, as far as possible, tries to acquaint the various school heads with the type of girl or boy it requires. When a position opens, it is a relatively simple matter to call up the principal of one of the schools and obtain a suitable person for the job.

In some cases the school systems are largely moulded by the industries or industry of the town. Such a case exists in South Manchester, Connecticut, where the Cheney Silk Mills are located. The Cheney mills found that employes who were graduates from schools in Manchester had not been well trained or thoroughly grounded in some of the fundamentals of education. Accordingly the mills made an offer to the town authorities, that, provided the town kept up its appropriation, they would contribute enough more to bring the schools up to standard. This offer was accepted by the town authorities and they follow, to a large extent, suggestions laid down by the mills.

In this connection, perhaps the bulk of the work has been done by the department stores. Strawbridge and Clothier of Philadelphia, for instance, have an arrangement with the William Penn High School of that city, whereby a number of girls, during vacation time of each year, act as part of the selling force of the store. The Dennison Manufacturing Company, in order to train girls for work in its office, each summer provides employment for a number of high school students. These girls are given positions, whether there is any particular need for them or not. The company feels that the results justify the expense to which it is put. Possibly the most extensive work has been done in Boston under the auspices of Simmons College and the Women's Educational and Industrial Union. By coöperation with such concerns as the following: Jordan Marsh Co., Gilchrist Co., Shepard Co., Wm.

Filene Sons Co., R. H. White Co., E. T. Slattery Co., there has been established a School of Salesmanship. The students are selected from the regular selling force, and must be approved by the store superintendent and the director of the schools. Girls who have had a high school training are preferred. Tuition is free and students attend the school without reduction of wages. The course occupies three hours each day, and is extended for three months. Courses in salesmanship, important features of textiles, color and design, economics, arithmetic, personal hygiene, English and merchandise, aim to teach, as part of the purpose of the course, "right thinking towards the work as a profession and to arouse a feeling of responsibility and interest." The work is supplemented by practical talks by a store representative. Similar courses in salesmanship are open, also, to the students in nine of the Boston High Schools. These, too, coöperate with the stores. Many of the girls work in the stores on Saturday, or even on Monday if their school record be good enough to warrant the absence.

Simmons College and the Union also offer a year's course for teachers of salesmanship and related subjects. This is fundamental, because in a great many places where the coöperation of stores and industrial plants with the schools might be brought about, there is not a sufficient supply of teachers for the schools. By teachers, we mean teachers with the proper training. A high official of one of our largest manufacturing concerns made the statement not long ago, that work in their instruction schools is more or less handicapped by the fact that it is almost impossible to find teachers who can instruct the classes in the subjects with which the company desires particularly to have them conversant.

There is still another way in which the schools and manufacturers may coöperate. The Cass Technical High School of Detroit has worked out a series of specifications for particular jobs. If a man wants to be a machinist he follows out one set of specifications. If he wants to be an electrician he is trained after a different formula. This particular school was among the first in this field, and has perhaps done more than almost any other in helping to bring about some specific training for certain jobs, before the candidate enters upon his service.

This sort of organization is not confined entirely to high school students. A great many children never get beyond the grades.

In order to enable the members of this group to carry their studies further, a system of continuation schools has been started. Continuation schools may be of two kinds: (a) compulsory, (b) voluntary. The former may or may not be of assistance to any one manufacturer, except in the general improvement due to better education. Almost every state now requires that working boys and girls between the ages of 14 and 16, be allowed to attend school, during business hours, a certain number of hours each week. In a school of this kind, there is a constant demand for teachers who are able to give courses dealing with the practical side of life, along with the fundamentals.

Voluntary continuation schools are chiefly of the part time variety. In some instances colleges and high schools, by coöperation with manufacturers, arrange to have their students spend part of each day doing actual practical work in the factory. The report of the Committee on School Inquiry, City of New York, gives a very comprehensive statement of this coöperative plan as it exists in the New York high schools. The University of Cincinnati applies this same plan to its men of university grade.

Perhaps the real voluntary continuation schools are those carried on within the factory. Some of these have already been mentioned in passing. Another instance is the J. G. Brill Company of Philadelphia, which established such a school just a year ago.

The problem of vocational education is one on which, at the present time, a great deal of stress is being laid. One of the most extensive studies in this direction which has been carried on has been made in Richmond, Virginia. This city has made a study of the several trades, printing, building, plumbing, metal trades, etc., and has made, in coöperation with employers, suggestions in regard to the kind of education which is suited to the needs of each case. It recognizes that the bulk of the work must be done either in part time or evening schools, in order to reach the majority of the workers. It recommends that these schools be of two types: (a) of the general order, (b) of the industrial order. It is worth while to stop and point out specifically some of the lines of training in the latter group. For the *moulders*, for instance, the following courses are recommended: (a) Shop mathematics; (b) Properties and Composition of irons and alloys, with special reference to furnace

fixtures; (c) Outlines of history of iron making; (d) First aid for burns and care of health in foundry conditions.

For machinists: (a) Shop mathematics, with special reference to calculation of working speeds, feeds and measuring instruments; (b) Mechanical drawing with special reference to machine parts; (c) Elements of mechanism; (d) Properties of metals with special reference to high and low carbon steels; (e) Designs of jigs and shop appliances; (f) Theory and practice of cutting tools; (g) Construction of various specialized machine tools.

Nor was this study entirely confined to trades in which men predominate. With the exception of offices and department stores, the white girls in Richmond are employed in manufacturing and mechanical pursuits. These operations can in the main be more quickly and satisfactorily learned in the factory than in the school, largely because the school lacks trade information. The *Survey* does not believe that a trade school is the answer to this. It recommends that courses, aimed to train in the practical arts, be added to the general education of girls over 13 years of age. This training is to begin in prevocational courses in the upper courses in the upper grades of elementary schools. In making this recommendation the *Survey* recognizes it is without precedent, but it is simply used to meet Richmond conditions.

A similar survey to that carried on in Richmond was made in Minneapolis, Minnesota. Both of these instances simply illustrate the general movement toward a more efficient lining up of workers for various specific trades and occupations through the coöperation of employers with educators and other public officials.

While the schools of various sorts are the largest single factor by which this particular phase of the employment problem has been met, they are by no means the entire story.

Next in order for consideration are the employment bureaus. These are of two kinds, namely: public and private. Of the latter type little need be said. Some are good, some bad—mostly the latter.

Public bureaus have been in existence since 1892. At first they served as a labor market, a place where the employer could make known his wants, and where the employe might find a job. In the course of time, because the bureaus have served in a large measure only the unskilled laborer, people have come to look upon

them as public clearing houses for that sort of worker. But gradually this attitude has been changed. The bureau which has probably done most to effect this alteration is located in Cleveland. This bureau has attracted equally the employer of the skilled and unskilled operator, the day laborer and the college graduate. This is so unusual that it is worth while to consider the plan of the Cleveland bureau more at length. Briefly stated it is as follows:

(1) By taking over all the scattered employment bureaus maintained by Y. M. C. A.'s, etc., the labor market is centralized. The finances of the bureau are maintained by the state, the city and by private funds.

(2) To centralize a community of interest. This is brought about by coöperation of the employer, labor organization and others particularly interested.

(3) To investigate both the employers and the applicants. This work has been particularly effective in cases where girls were to be employed.

(4) To follow up the applicants that are placed for the period of one year. This tends to make the bureau pick, through its experience, a round peg for a round hole. It also makes the successful candidate work harder on the job.

The advantages of a bureau such as this are: (a) it commands the confidence of both the person to be employed and the employer; and (b) by thus combining the efforts of all, a great deal of unemployment with its accompanying economic waste may be cut down; (c) a lot of preliminary interviewing may be saved the employment manager. So successful has been the work of this office, that in the girls' and women's bureau alone, of the 38,849 people who applied, 15,392 received jobs, and some 19,000 were referred to positions. The work showed an increase of 45 per cent over the previous years. Thus the employment departments in Cleveland have a dependable source of supply on which they can call at any time. It is to be regretted that Cleveland stands almost alone in this respect.

Still another factor which operates toward a dependable labor supply is the employers' relations with one another. The Employment Managers' Association in Boston has demonstrated the value of these associations in regard to one particular subject. This group has agreed that since through their connection with each

other they see over the whole field, the right position shall have the right man irrespective of his present firm. That is, a firm may have an able man whose advancement is obstructed by the man ahead; if an advantageous position opens with another concern his employer sees that the man gets the better job. This works to the advantage of both the man who hires and the man who is to be hired. The former gets a good man, and the latter is no longer dependent upon the decease of the man ahead for his promotion. On first view, this is an excellent scheme, but its efficacy is questioned by many business men. Few firms are willing to let a good man go, even for his own advantage, when his departure will be a loss to the concern involved. But at least, the idea betokens a healthy change in a city where the employes of department stores were once threatened with discharge if they even talked with a representative of another store.

All the methods which we have so far discussed, have been more or less indirect. One firm has tried the very direct method of canvassing the territory adjacent to its plant, in order to be assured of a steady source of labor. Instances of this practise thoroughly carried out are rare.

But schools, employment bureaus and the rest deal with workers who are coming in from the outside. Is there not a source of labor supply to be organized within your own organization? The answer is obviously, "Yes."

In any plant, the friends of the people who are working in the plant form an ever-present supply. Some concerns indeed rely on this almost entirely. The Dennison Manufacturing Company, for instance, gets its information about a man to be employed, not so much from his former employer, as from employes within its own plant who are friends of the applicant.

There is this to be said. We are all conversant with the old adage anent to birds of a feather. If by better selection and better training, we are able to get better employes, shall we not through the operation of the tendency discussed above, be able to gradually raise our entire force to a higher level? That is, if selection and training improve the type, almost automatically the source from which the type is drawn will improve.

Within the organization itself, promotions and transfers often unearth a man whose light had been hid under a bushel. Mr.

Reilly of the Dennison Manufacturing Company in another section of this issue has shown what his company has done in this respect.

The Western Electric Company, which has already been mentioned, aims to promote men from its own ranks as far as possible. When a vacancy occurs, the man next in line is first considered for the position. This has resulted in the filling of many important positions with comparatively young men, but the company has been sufficiently successful under their direction to warrant confidence in this policy.

In the problem of employment management, one or two concerns have stood out prominently as laying stress on the human factor. The reputation for this has gone abroad, and these concerns find that very reputation a means of having always on hand the type of operatives they most desire. Thus the Feiss Company of Cleveland experiences no difficulty, at the present time, in getting all the workers of the sort it wants. Hart, Shaffner and Marx of Chicago are in the same position. The people who are going to apply for work know beforehand what the company expects of them, and what, in turn, the company will do for them. A great many are mechanically eliminated without the necessity of even going to the factory. Of those who do apply at the factory and get positions, the majority seem to stick, as witness the small labor turnover.

The work of the labor unions along this line of endeavor has been practically negligible. It is an angle of approach which, for some reason or other, seems to have been entirely omitted.

A widely known professor in one of our larger universities once made the statement that he was always glad to see a member of the teaching staff go. That no matter who he was, the stimulus which a new man brought into the organization, more than offset the effects of the first man's leaving. Possibly this overstates the case, but everyone recognizes that new blood is of value to any organization. Let us not carry a good thing too far and overstabilize our working forces. But by organizing the source of labor supply, it is hoped that the value of new blood will be infinitely enhanced. But as regards the problem in general, so far we have merely ruffled the surface.